disease and obesity, as well as between sHTG and diabetes and acute pancreatitis. Patients with HTG received treatment with statins, fibrates, and omega-3 formulations, including omega-3 ethyl esters and omega-3 fatty acids. Combination therapy was typically more effective at reducing TG levels than monotherapy. Economic data were reported only for sHTG patients in the United States (US) with annual direct costs from $8,000 -$9,000. Patients with TG levels >17 mmol/L observed a marked increase in the total all-cause medical and pharmacy costs, which reached $12,642/year. Prescription omega-3 ethyl esters were cost-effective in the US based on a simulation model estimating $47,000/quality-adjusted life-year using a threshold of $50,000. Only two identified studies reported patient-centered outcomes. **CONCLUSIONS:** High HTG prevalence in various regions indicates disease burden is not effectively managed by current therapies and suggests a need for new treatments. Treating HTG and associated comorbidities results in a substantial economic burden. Further research is needed on the patient-centered burden of HTG and the economic impact of this disease, specifically in non-US locations and patients with TG levels ≥2.26 and <5.6 mmol/L.

PCV8

PATIENT PROFILE OF NEW USERS OF NOVEL ORAL ANTICOAGULANTS IN NON-VALVULAR ATRIAL FIBRILLATION (NVAF): REAL-WORLD EVIDENCE FROM PRIMARY CARE DATA IN GERMANY

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OBJECTIVES: Atrial fibrillation is the most common arrhythmia, affecting more than 4.5 million people in Europe. Owing to recent introduction of novel oral anticoagulant (NOACs) treatments in Germany, there is a need to generate real-world evidence on the profiles of patients with NVAF prescribed with such therapies. This study aimed to describe demographic and clinical characteristics of patients with NVAF newly prescribed NOACs in Germany. **METHODS:** Retrospective cohort study of patients with NVAF who were newly prescribed with NOACs (index prescription) between December 2012 and October 2014, using German primary care data from IMS Disease Analyzer. We calculated summary statistics of demographic and clinical characteristics in each NOAC therapy group. **RESULTS:** Overall, 2,678 patients initiated apixaban, 2,696 dabigatran, and 9,562 rivaroxaban in the study period. At time of index NOAC initiation, mean age was 75.9 years (standard deviation 10.0; interquartile range 71-83) for apixaban, 74.5 (SD 10.3; IQR 69-82) for dabigatran, and 74.7 (SD 10.4; IQR 69-82) for rivaroxaban. Across all NOAC therapies, around half were men and approximately 80% lived in West Germany. Patients on apixaban had higher rates of stroke risk factors such as hypertension (88.2% vs. 86.4% and 85.4% for dabigatran and rivaroxaban, respectively); vascular diseases (61.3% vs. 57.2% and 58.5%); and congestive heart failure (43.5% vs. 39.6% and 40.9%); and higher rate of bleeding history (30.0% vs. 27.1% and 27.8%). **CONCLUSIONS:** In routine clinical practice in Germany, patients newly treated with NOACs were elderly and frequently had comorbidities of cardiovascular importance such as hypertension and vascular diseases. Patients on apixaban had higher rates of stroke risk factors and bleeding history, which are likely to impact treatment patterns and outcomes observed in this population. Future comparative effectiveness research across NOACs should account for channeling in patient profiles.

PCV10

TRENDS AND CORRELATES OF PULMONARY EMBOLISM IN HOSPITALIZED SPANISH PATIENTS

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OBJECTIVES: To review trends in pulmonary embolism-related discharges and understand sociodemographic and seasonal factors correlated with a PE diagnosis among hospitalized Spanish patients. **METHODS:** Using hospital discharge data from the Encuesta de Morbilidad Hospitalaria we analyzed trends in PE-related hospital discharges in Spanish hospitals from 2008 to 2011. PE was defined based on principal diagnosis ICD-9 codes 41511 (Iatrogenic pulmonary embolism and infarction), 41512 (septic pulmonary embolism), 41513 (saddle embolus of pulmonary artery), and 41519 (other pulmonary embolism and infarction). The principal diagnosis was established to be the primary reason the patient was hospitalized. Results were stratified by age, sex, province and season of the year. We used log-binomial and logistic regression models to evaluate the relationship between these characteristics and a diagnosis of PE. **RESULTS:** Of the 18,317,000 hospital admissions over the 4-year period, 56,600 (0.31%) were primarily PE-related. The proportion of PE diagnosis of all hospitalizations remained steady, ranging from 0.28%- 0.34%. PE risk was similar among males and females; risk ratio (RR) 1.03 95% CI (1.04-1.07). PE-related hospitalizations increased with age however, rates were higher in men 65 years and younger than their female counterparts and higher in women 70 and older than their male counterparts. The greatest change (30% increase) in diagnosis from 2008-2011 was among 40-59 year olds and people over 80. We found a seasonal variation in PE diagnosis, with lowest rates of diagnosis in April to July in both males and females, over the 4-year period. PE hospitalization rates were two times higher in the northern than southern regions RR 1.82(1.76-1.88). **CONCLUSIONS:** Age, gender, geographic location and month of the year were correlated with diagnosis of PE among hospitalized Spanish patients. A future area of research is to clarify these relationships and determine possible interventions to reduce PE in these populations.

PCV11

COMPARATIVE EFFECTIVENESS OF TRIPLE ANTIHYPERTENSIVE COMBINATION THERAPY FOR PATIENTS WITH RESISTANT HYPERTENSION IN TAIWAN

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OBJECTIVES: Resistant hypertension (RH) is highly associated with cardiovascular risks. The difficulty in enrolling large numbers of study participants limits studies on treatment effects of RH. This study aims to compare the effectiveness of triple antihypertensive combination therapy for RH patients in Taiwan. **METHODS:** Patients who had 3 antihypertensive agents of different classes concurrently prescribed in outpatient clinics with their medication possession ratio ≧0.7 during 2004-2006 were identified as the RH cases from the National Health Insurance Research database. The 1st outpatient visit with 3 antihypertensive agents of different classes being prescribed was defined as the index date. Patients were further classified into two treatment groups according to the combination of antihypertensive therapy; the A+B+C group was defined as those who received concurrent therapy of ACEI/ARB in combination with beta-blocker and CCB, and the A+C+D group was those who received ACEI/ARB together with CCB and diuretics. The Cox proportional regression analysis was performed to investigate the risk of major adverse cardiovascular events (MACE) between the two treatment groups. Subgroup analysis was further performed by classifying patients into those with or without previous history of stroke, myocardial Infarction or end stage renal diseases. **RESULTS:** There were 13,551 patients identified as the prevalence cases of RH during 2004-2006. Results showed the A+C+D group had a lower risk of MACE when compared to the A+B+C of group (adjusted HR=1.11; 95%CI 1.01-1.22; p=0.0272). Subgroup analysis showed there was no significant difference in the risk of MACE between the A+B+C and the A+C+D groups either in patients with prior disease history (adjusted HR =1.10; 95%CI 0.96-1.25; p=0.1881) or without prior disease history (adjusted HR =1.12; 95%CI 0.99-1.28; p=0.0767). **CONCLUSIONS:** The A+C+D combination therapy seemed to be more effective than the A+B+C therapy in preventing MACE among patients with RH.

PCV12

NETWORK META-ANALYSIS TO ASSESS COMPARATIVE EFFECTIVENESS OF BETA-BLOCKERS IN PATIENTS WITH HEART FAILURE AND REDUCED EJECTION FRACTION

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OBJECTIVES: Randomized trials have shown that blockade of beta adrenergic receptors leads to symptomatic improvement, reduced hospitalization and enhanced survival in many patients with heart failure (HF) and reduced ejection fraction. The objective of this study was to compare beta blockers for their efficacy in reducing mortality. **METHODS:** A systematic literature search for randomized clinical trials for use of beta blockers in HF was undertaken for the databases Pubmed, Embase, Biosis, Google Scholar and Cochrane. Data was collected for the study type, methods, country and key findings. Extracted study data included study design, patient charatcertristcis and primary outcomes. A bayesian random effects network meta-analysis (NMA) model was developed in WinBUGS14. **RESULTS:** We identified 830 references and found 21 randomized trials in 23,122 patients with 3,871 events. The treatments included in our study were Enalapril (E), Metoprolol (M), Atenolol (A), Bisoprolol (Bi), Bucindolol (Bu), Carvedilol (C), Metoprolol (M), Nebivolol (N) and placebo (P). All beta-blockers versus placebo were effective in reducing mortailty in HF and reduced ejection fraction patients. Carvedilol ranked the highest with a Surface Under the Cumulative RAnking curve (SUCRA) score of 0.8672, Atenolol was second with score of 0.7035. SUCRA scores for other drugs were: Bisoprolol 0.6897, Metoprolol 0.6139, Nebivolol 0.3704, Bucindolol 0.3519, Enalapril 0.2635 and Placebo 0.1399. The odds ratios for Carvedilol and Atenolol versus placebo were 0.56 (0.43 – 0.71) and 0.54 (0.15 – 1.87), respectively. **CONCLUSIONS:** Network meta-analysis shows that Carvedilol ranks highest among beta-blockers for reduction in mortality in patients with heart failure and reduced ejection fraction.

PCV13

COST-EFFECTIVENESS OF APIXABAN COMPARED TO LOW MOLECULAR WEIGHT HEPARIN/ EDOXABAN FOR TREATMENT AND PREVENTION OF RECURRENT VENOUS THROMBOEMBOLISM

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OBJECTIVES: The National Institute for Health and Care Excellence in the United Kingdom (UK) recently issued guidance recommending the non-vitamin k antagonist oral anticoagulants (NOACs) rivaroxaban, dabigatran and apixaban for treatment and prevention of venous thromboembolism (VTE). An economic evaluation assessing apixaban versus rivaroxaban and dabigatran found apixaban was associated with greater quality-adjusted life-years (QALYs) gained at a lower cost. Edoxaban, another NOAC, is poised to enter the (ex-United States [US]) market for the same indication. This analysis therefore evaluated the cost-effectiveness of apixaban compared to low molecular weight heparin (LMWH) followed by edoxaban from the perspective of the UK National Health Service. **METHODS:** A Markov model was developed to evaluate the lifetime clinical and economic impact of six-month treatment following a VTE event with apixaban versus LMWH/edoxaban. The model included the following health states: recurrent VTE, major bleed, clinically relevant non-major bleed, chronic thromboembolic pulmonary hypertension, and death. Transition rates among health states were based upon AMPLIFY and AMPLIFY-EXT clinical trial data, network meta-analyses, and UK life tables. Cost and utilities were based on published estimates. Price parity with apixaban was assumed in the absence of any pricing information for edoxaban. Outcomes were life-years gained, QALYs gained, costs estimated in 2012 British pounds, and the incremental cost-effectiveness ratio (ICER). **RESULTS:** Six-month treatment with apixaban was predicted to increase life expectancy and QALYs as compared to LMWH/edoxaban over a lifetime horizon. When these treatments were priced at parity, apixaban was associated with cost-savings due to avoided bleeds and higher cost of LMWH. Dominance was maintained even when edoxaban was priced at an 18% discount